

BEAR RIVER BASIN

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10023000 BIG CREEK NEAR RANDOLPH, UT

LOCATION.--Lat 41°36'36", long 111°15'12", in NW¹/4NW¹/4NE¹/4 sec. 15, T. 10 W., R. 6 E., Rich County, Hydrologic Unit 16010101, on left bank 2.7 mi downstream from main forks and 5.2 mi southwest of Randolph.

DRAINAGE AREA.--52.4 mi².

PERIOD OF RECORD.--March 1939 to September 1944 (fragmentary), October 1949 to September 1970. October 1986 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,410 ft above NGVD of 1929, from topographic map. March 1939 to September 1944 (fragmentary), at site 0.2 mi downstream at different datum, October 1949 to September 1959 at site 200 ft upstream at different datum, September 1959 to September 1970 at site 300 ft upstream at different datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 337 ft³/s, Jul 11, 1957, gage height, 3.75 ft, site and datum then in use; minimum discharge, 0.9 ft³/s, Aug 4, 1961.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 60 ft³/s and maximum (*):

| Date | Time | Discharge (ft ³ /s) | Gage height (ft) | Date | Time | Discharge (ft ³ /s) | Gage height (ft) |
|--------|------|-----------------------------------|---------------------|------|------|-----------------------------------|---------------------|
| Jul 18 | 1750 | 70 | *5.65 | | | | |

Minimum daily discharge 2.4 ft³/s, Aug 12.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 3.8 | 4.0 | e3.4 | e3.4 | e3.7 | e3.9 | 5.8 | 6.9 | 6.7 | 3.6 | 2.8 | 2.8 |
| 2 | 3.8 | e4.1 | e3.4 | e3.5 | e3.7 | e3.8 | 5.7 | 6.8 | 6.9 | 3.5 | 2.9 | 2.8 |
| 3 | 3.7 | e4.2 | e3.4 | e3.5 | e3.7 | e3.7 | 5.5 | 6.8 | 6.7 | 3.5 | 3.0 | e2.7 |
| 4 | 3.7 | e4.3 | e3.3 | e3.6 | e3.6 | e3.6 | 5.3 | 6.4 | 6.5 | 3.5 | 2.8 | e2.9 |
| 5 | 3.8 | e4.4 | e3.3 | e3.6 | e3.6 | e3.7 | 5.4 | 6.3 | 6.0 | 3.3 | 2.6 | 2.9 |
| 6 | 4.0 | e4.3 | e3.4 | e3.7 | e3.7 | e3.8 | 5.3 | 6.3 | 5.9 | 3.6 | 2.6 | 3.2 |
| 7 | 4.1 | e4.2 | e3.4 | e3.8 | e3.7 | e3.8 | 5.0 | 6.5 | 5.8 | 3.6 | 2.6 | 3.5 |
| 8 | 4.1 | e4.1 | e3.4 | e3.8 | e3.8 | e3.7 | 4.8 | 6.5 | 5.8 | 3.1 | 2.5 | 3.8 |
| 9 | 4.3 | e4.1 | e3.5 | e3.7 | e3.8 | e3.6 | 4.9 | 6.5 | 5.9 | e3.3 | 2.5 | 3.6 |
| 10 | 4.3 | e4.0 | e3.6 | e3.7 | e3.8 | e3.6 | 5.6 | 7.1 | 6.0 | e3.1 | 2.6 | 3.2 |
| 11 | 4.7 | e4.0 | e3.5 | e3.7 | e3.9 | e3.7 | 5.4 | 8.3 | 5.8 | 3.0 | 2.5 | 3.5 |
| 12 | 4.7 | e4.0 | e3.4 | e3.8 | e3.9 | e3.7 | 5.2 | 7.1 | 5.6 | 2.9 | 2.4 | e3.6 |
| 13 | 4.5 | e4.0 | e3.4 | e3.7 | e3.9 | e3.8 | 5.2 | 6.6 | 5.4 | 2.9 | 2.5 | e3.8 |
| 14 | 4.4 | e3.9 | e3.4 | e3.7 | e4.0 | e3.8 | 5.4 | 6.6 | 5.2 | e2.8 | 2.6 | e3.8 |
| 15 | 4.5 | e3.8 | e3.5 | e3.8 | e4.0 | e3.8 | 6.0 | 6.5 | 4.9 | 3.3 | e2.7 | e3.7 |
| 16 | 4.5 | e3.7 | e3.6 | e3.8 | e3.9 | e3.9 | 5.8 | 6.4 | 4.9 | 3.7 | e2.8 | e3.6 |
| 17 | 4.5 | e3.7 | e3.7 | e3.9 | e3.9 | e3.9 | 5.5 | 6.4 | 4.7 | 4.0 | e2.9 | e3.7 |
| 18 | 4.4 | e3.6 | e3.6 | e3.9 | e3.8 | e3.9 | 5.4 | 6.4 | 4.7 | e5.5 | e3.0 | e3.8 |
| 19 | 4.3 | e3.6 | e3.6 | e3.9 | e3.9 | e4.0 | 5.5 | 6.4 | 4.6 | e4.7 | e3.0 | e4.0 |
| 20 | 4.2 | e3.6 | e3.5 | e4.0 | e4.0 | e4.0 | 6.5 | 6.6 | 4.5 | e4.3 | 2.9 | 4.1 |
| 21 | 4.1 | e3.6 | e3.5 | e4.1 | e4.0 | e4.1 | 5.3 | 7.1 | 4.4 | e4.0 | 3.2 | 3.9 |
| 22 | 4.1 | e3.5 | e3.5 | e4.2 | e4.1 | e4.2 | 4.9 | 7.7 | 4.7 | e3.8 | 3.1 | 3.9 |
| 23 | 4.9 | e3.6 | e3.6 | e4.2 | e4.1 | e4.3 | 4.8 | 6.8 | 4.4 | 3.7 | e3.0 | 4.0 |
| 24 | 4.3 | e3.5 | e3.7 | e4.1 | e4.2 | e4.4 | 4.7 | 6.3 | 4.1 | 3.3 | e3.0 | 3.9 |
| 25 | 5.1 | e3.5 | e3.8 | e4.0 | e4.3 | e4.5 | 5.0 | 6.0 | e4.1 | 3.5 | e2.9 | 3.8 |
| 26 | 4.2 | e3.6 | e3.7 | e3.9 | e4.2 | e4.6 | 5.8 | 5.9 | 4.2 | 4.2 | e2.9 | 3.8 |
| 27 | 4.0 | e3.6 | e3.7 | e3.8 | e4.1 | 6.0 | 7.1 | 6.0 | 4.2 | 3.3 | 2.9 | 3.7 |
| 28 | 3.8 | e3.5 | e3.6 | e3.8 | e4.0 | 5.7 | 7.1 | 5.9 | 3.8 | 3.1 | 3.0 | 3.7 |
| 29 | 3.7 | e3.5 | e3.5 | e3.8 | --- | 5.5 | 6.5 | e6.2 | 3.7 | e3.2 | 2.9 | 3.8 |
| 30 | 3.7 | e3.5 | e3.5 | e3.8 | --- | 5.4 | 6.5 | e6.6 | 3.7 | e2.9 | 2.8 | 5.0 |
| 31 | 5.1 | --- | e3.4 | e3.8 | --- | 5.7 | --- | 6.6 | --- | e2.8 | 2.8 | --- |
| TOTAL | 131.3 | 115.0 | 108.8 | 118.0 | 109.3 | 130.1 | 166.9 | 204.5 | 153.8 | 109.0 | 86.7 | 108.5 |
| MEAN | 4.235 | 3.833 | 3.510 | 3.806 | 3.904 | 4.197 | 5.563 | 6.597 | 5.127 | 3.516 | 2.797 | 3.617 |
| MAX | 5.1 | 4.4 | 3.8 | 4.2 | 4.3 | 6.0 | 7.1 | 8.3 | 6.9 | 5.5 | 3.2 | 5.0 |
| MIN | 3.7 | 3.5 | 3.3 | 3.4 | 3.6 | 3.6 | 4.7 | 5.9 | 3.7 | 2.8 | 2.4 | 2.7 |
| AC-FT | 260 | 228 | 216 | 234 | 217 | 258 | 331 | 406 | 305 | 216 | 172 | 215 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950-70, 1987-2002, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| MEAN | 12.41 | 11.41 | 10.28 | 9.463 | 9.311 | 10.50 | 15.60 | 31.41 | 22.41 | 16.58 | 13.93 | 12.72 |
| MAX | 26.7 | 25.9 | 23.7 | 23.4 | 22.7 | 25.4 | 42.3 | 95.4 | 62.2 | 40.3 | 32.8 | 29.2 |
| (WY) | 2000 | 1987 | 1987 | 1987 | 1999 | 1999 | 1951 | 1952 | 1952 | 1950 | 1999 | 1999 |
| MIN | 2.14 | 2.84 | 2.18 | 2.17 | 2.63 | 2.65 | 3.56 | 2.85 | 1.86 | 1.48 | 1.29 | 1.80 |
| (WY) | 1993 | 1993 | 1991 | 1991 | 1991 | 1991 | 1991 | 1992 | 1992 | 1961 | 1992 | 1992 |

BEAR RIVER BASIN

10023000 BIG CREEK NEAR RANDOLPH, UT--Continued

| SUMMARY STATISTICS | FOR 2001 CALENDAR YEAR | FOR 2002 WATER YEAR | WATER YEARS 1950-70, 1987-2002 |
|--------------------------|------------------------|---------------------|--------------------------------|
| ANNUAL TOTAL | 2065.8 | 1541.9 | 14.70 |
| ANNUAL MEAN | 5.660 | 4.224 | 32.1 3.24 |
| HIGHEST ANNUAL MEAN | | | 1952 1992 |
| LOWEST ANNUAL MEAN | | | |
| HIGHEST DAILY MEAN | 11 Mar 21 | 8.3 May 11 | 140 May 18 1950 |
| LOWEST DAILY MEAN | 3.1 Feb 8 | 2.4 Aug 12 | 1.0 Aug 5 1992 |
| ANNUAL SEVEN-DAY MINIMUM | 3.4 Dec 1 | 2.5 Aug 7 | 1.1 Aug 8 1992 |
| ANNUAL RUNOFF (AC-FT) | 4100 | 3060 | 10650 |
| 10 PERCENT EXCEEDS | 9.1 | 6.1 | 29 |
| 50 PERCENT EXCEEDS | 4.7 | 3.8 | 11 |
| 90 PERCENT EXCEEDS | 3.6 | 3.0 | 3.9 |

e Estimated

